Does ambiguity aversion reinforce risk aversion? Applications to portfolio choices and asset prices

Christian Gollier
Toulouse School of Economics (LERNA and EIF)
March 14, 2008

The first version of this paper was written while the author was visiting Beijing University. The author thanks Alain Chateauneuf, Jean-Marc Tallon, Thomas Mariotti, Jean Tirole, François Salanié and seminar participants at Paris 1, Georgia State, Helsinki and Toulouse for helpful comments.

Abstract

It is often suggested that ambiguity aversion makes individuals more precautionary, thereby offering a potential explanation for the equity premium puzzle. We show that this is not true in general. We consider a model in which risk-and-ambiguity-averse agents can invest in an unambiguously safe asset and in an ambiguous risky asset. We exhibit some sufficient conditions to guarantee that, ceteris paribus, an increase in ambiguity aversion reduces the demand for the ambiguous risky asset, and raises the equity premium. For example, this is the case when the set of plausible distributions of returns can be ranked according to the monotone likelihood ratio order. We also show how ambiguity aversion distorts the price kernel.

Keywords: smooth ambiguity aversion, monotone likelihood ratio, equity premium, portfolio choice, price kernel, central dominance.